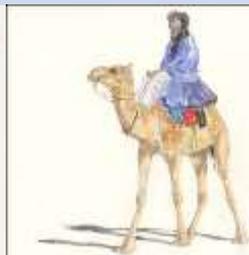




CMS Family Capacity Building Workshop for African National Focal Points

Rationale for CMS

**29-31 October 2013,
Cape Town, South Africa**



2.1 Rationale for Protecting Migratory Species



Migratory species contribute to ecosystem services through:

- Structure and function
... they play an important role in shaping environments
- Regulating services
e.g. pollination, pest control ...
- Inter-related with resident flora and fauna
- ...ACROSS ECOSYSTEMS AND INTERNATIONAL BOUNDARIES

2.1 Rationale for Protecting Migratory Species



Other services:

- Provisioning services
 - Sustaining livelihoods
e.g. source of protein, tourism benefits
- Cultural services
 - Strong cultural beliefs: the 'wonder of migration'
 - Socio-economic benefits
 - Ecotourism
- Indicators of ecological changes, e.g. climate, pollution

2.1 Rationale for Protecting Migratory Species

Threats to Migratory Species Globally

- Barriers to migration
- Habitat loss and Degradation
- By-catch
- Underwater noise
- Alien invasive species
- Wildlife disease
- Illegal hunting & fishing
- Pollution, marine debris
- Poisoning
- Desertification
- Climate change

Barriers to migration



Barriers to migration

- Physical structures such as power lines and wind turbines can be significant sources of mortality if located across migratory or other flight-lines.
- Full assessments are required prior to construction through EIAs, which must consider data on bird movements.
- This *should* avoid structures being built in sensitive areas (e.g. migration bottlenecks).
- Mitigation measures for power & phone lines include flags / markers and neutral wires.



Habitat loss & degradation

- Migratory species may use different habitats during their annual cycle.
- Threats to habitat include: wetland drainage, forest loss, conversion to other land uses (e.g. for irrigation or biofuels), pollution, dams, water abstraction, over-harvesting of plants (e.g. mangroves), fire, invasive plants.
- ‘Wider’ threats include drought & climate change.



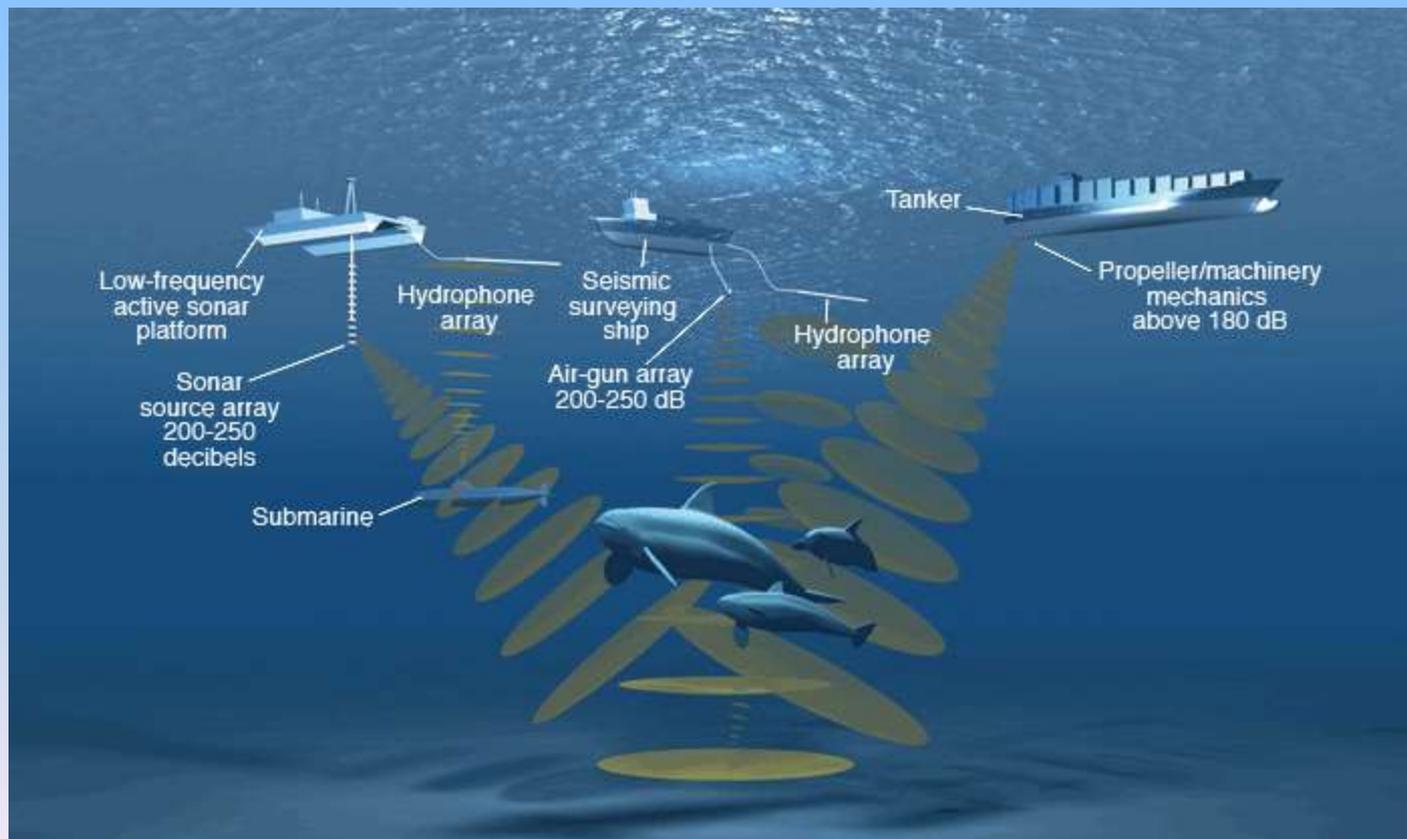
By-catch

- Incidental capture of non-target species



Underwater noise

- the noise from shipping, seismic surveys, military activity etc is creating a totally different marine environment
- Many underwater species have to communicate to survive



Underwater noise: Beached whales after military sonar exercise



Alien invasive species



Wildlife disease

- Congregatory migratory animals are especially vulnerable:
 - they contact different disease organisms along their way;
 - they form dense flocks / groups;
 - migratory performance can be affected.
- e.g. Botulism, Avian influenza ...



Hunting / harvesting & trade

- Can have significant impacts at the population level.
- Coordinated actions are essential to ensure a sustainable harvest, and that rare animals are not taken.
- Avoid non-selective methods of hunting and trapping.
- Hunting, fishing and harvesting must be carefully monitored, as it is **cumulative** across the whole migratory area.



Illegal hunting & trade

- **Illegal hunting** is widespread and often not accounted for in assessing levels of hunting.



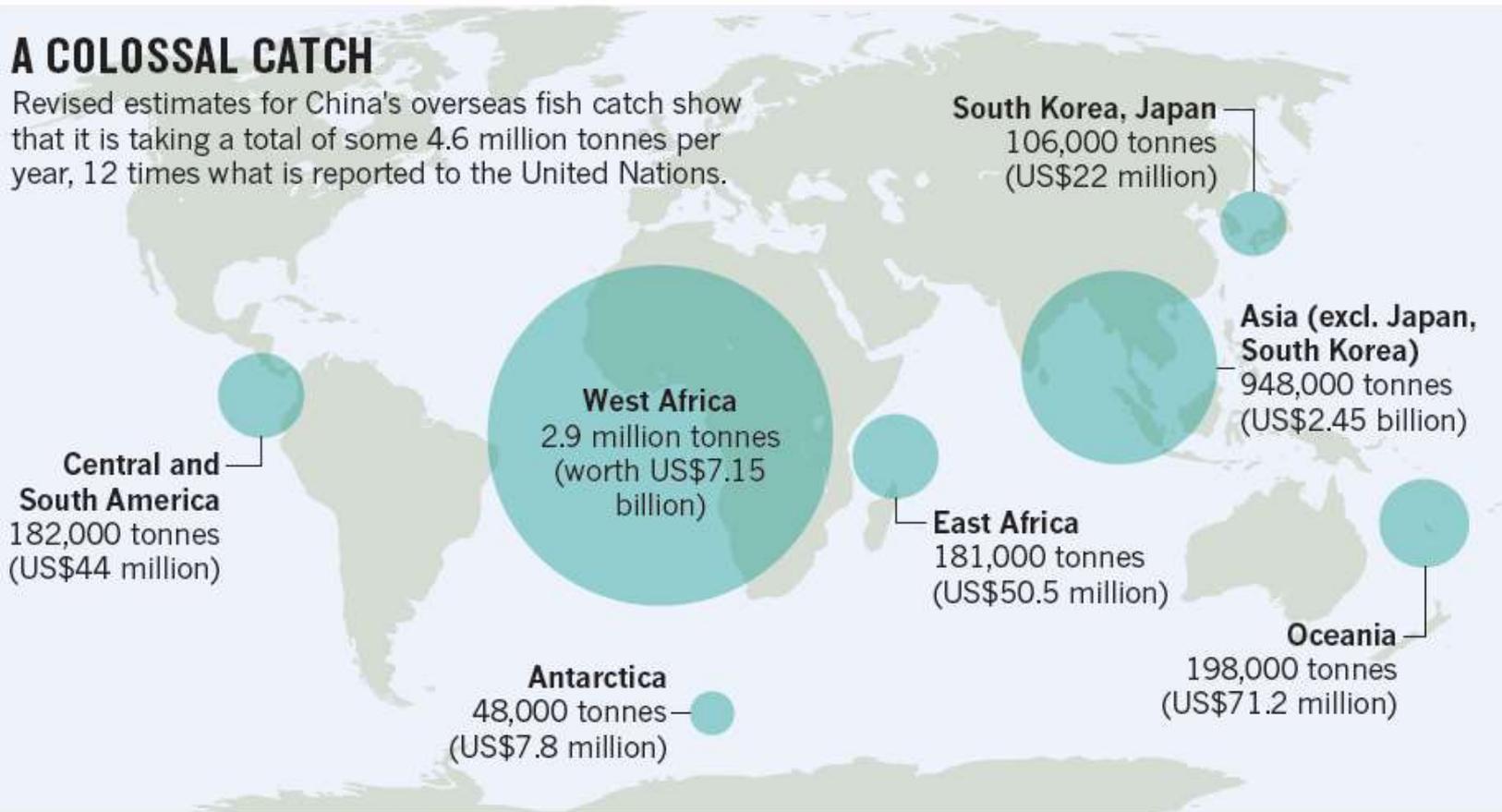
- **Accidental hunting** is also an issue, e.g. confusion between look-alike species, especially in flight.

Illegal fishing

- **Illegal fishing** is a major issue off West Africa

A COLOSSAL CATCH

Revised estimates for China's overseas fish catch show that it is taking a total of some 4.6 million tonnes per year, 12 times what is reported to the United Nations.





Pollution & marine debris

Pollution

- Oil pollution can cause significant harm to migratory waterbirds & seabirds.
- The worst cases result from large oil spills, e.g. from wrecked tankers.
- Prevention and preparedness / response measures are vital.



Pollution & marine debris

HOW LONG UNTIL IT'S GONE?

Estimated decomposition rates of common marine debris items



Estimated individual item timelines depend on product composition and environmental conditions.

Source: NOAA (National Oceanic and Atmospheric Administration), US / Woods Hole Sea Grant, US / France's Green Labs / Museum für Umwelt und Zirkuläre ZWIK.

Poisoning

- Poisons can become concentrated in water bodies
- Birds that feed in agricultural lands are vulnerable, eg Blue Crane
- The poison carbofuran (Furadan) has been used indiscriminately in Kenya to kill wild mammals and birds; recent cases of cyanide in Zimbabwe



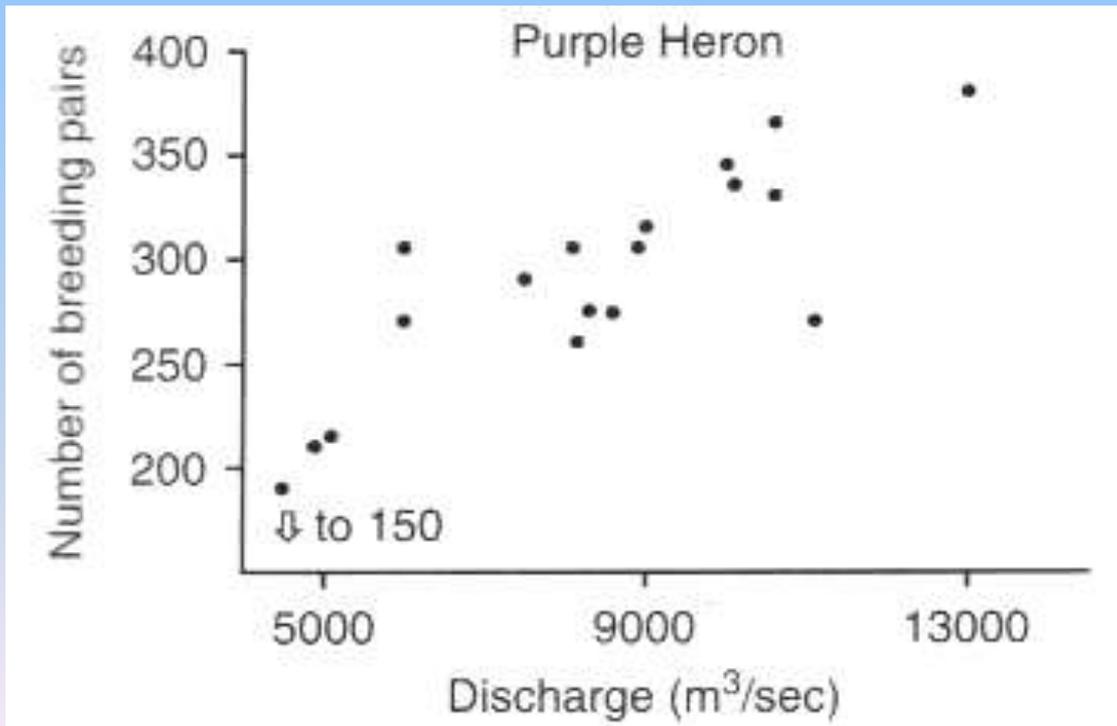
Disturbance



- Disturbance can significantly influence animal behaviour and can prevent them from feeding (enough) or breeding.
- Colonial migratory species are particularly sensitive to disturbance.
- Disturbance can be minimised through site management and awareness.

Desertification & Climate Change

- Significant impacts on migratory species
- Can affect their migration route and where they decide to live



Mitigation measures

- Various mitigation measures exist, which countries – and NFPs! – need to put in place, e.g.:
 - Site action: restoration and effective site management
 - Sound policies
 - Coordinated actions
 - Prevent physical barriers along migratory bottlenecks
 - Devices on barriers
 - Preparedness & surveillance
 - Minimise disturbance at key sites.





Merci beaucoup
Thank you very much